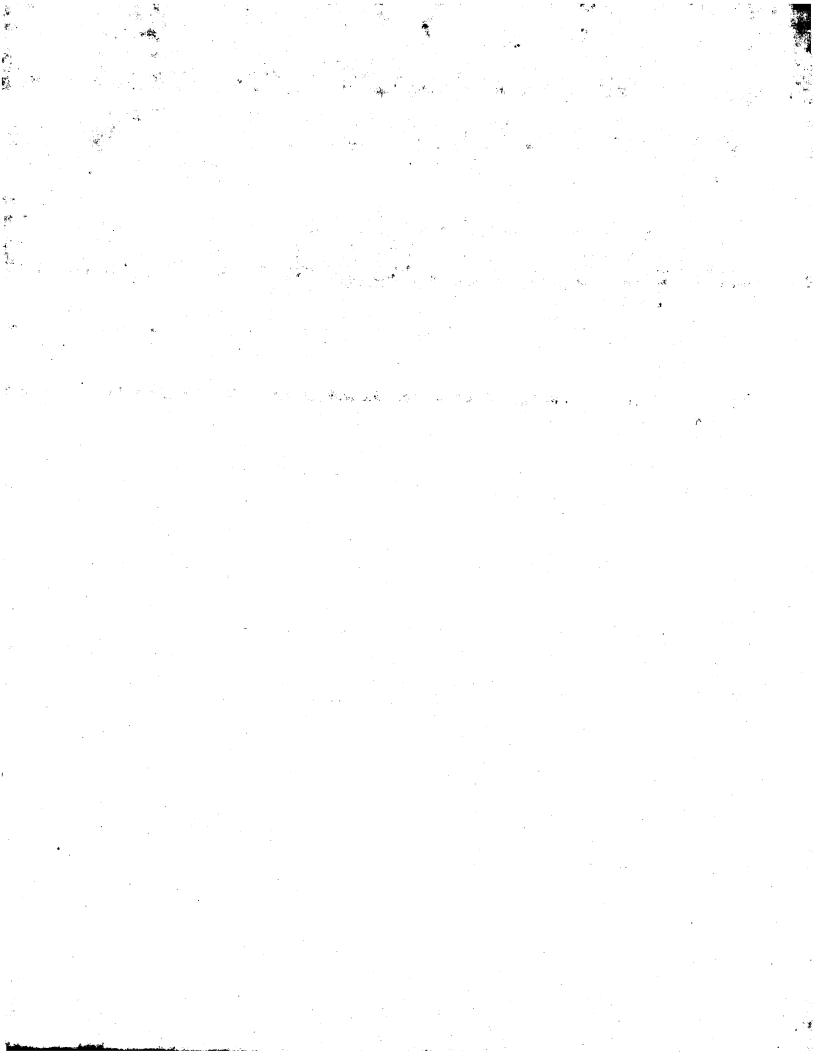
Access DB# 444819

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Nam	e:		Examiner #:	Date:
Art Unit:	Phone Number 3	0	_ Serial Number:	
Mail Box and Bldg/R	oom Location:	Resul	ts Format Preferred (circle):	PAPER DISK E-MAIL
If more than one sea	arch is submitted, plo	ease prioritize	searches in order of ne	ed. ********
Include the elected specie utility of the invention. D	s or structures, keywords, s	synonyms, acrony lave a special mea	s specifically as possible the subms, and registry numbers, and c ning. Give examples or relevanthstract.	ombine with the concept or
Title of Invention:				
Inventors (please provide	de full names):		A. A	
,				
Earliest Priority Filin	g Date:		<u> </u>	
			arent, child, divisional, or issued p	atent numbers) along with the
			•	
*******	*******	******	*********	*******
STAFF USE ONL	~ ` ` ''	of Search	Vendors and cost	,
Searcher D. Schvi		quence (#)	STN	
Searcher Phone # 3.7		quence (#)	Dialog .	
Searcher Location:	M 12E18 Structu	ıre (#)	Questel/Orbit	
Date Searcher Picked Up.	Biblio	graphic	Dr.Link	·
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Clerical Prep Time.	/	Family	WWW/Internet	
Online Time:	Other		Other (specify)	<u> </u>

PTO-1590 (1-2000)



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Result
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Maximum Match 100%
Listing first 45 summaries
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1: /SIDS6/gcgdat
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Copyright (c) 1993 - 2000 Compugen Ltd
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            Chimeric antibody
T84.12 Heavy chain
MAb 55.1 heavy cha
MAb 55.1 heavy cha
Anti-Fas MAb HF57A
Mouse anti-Fas ant
Murine anti-Fas an
                                                                                                                                   Monoclonal antibod
Monoclonal antibod
Sequence encoded b
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Antibody F19 chime
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Y77766	в30322	Y29458	R31023	W85692	W85689	R97376	R43673	W90936	W14940	W14939	в36210	W86003	R24442	R28808	W14938	W14941	W48650	W90926	B14776	W83036	W90935	W90929	B14779	W83037	W90934	W90933	W49816	R43339	Y50166	в08026	7	675	21
Humanised anti-IL-	Ξ.	nt immur	Antibody D heavy c	MoTAbII fusion pro	D9D10 heavy chain	Murine anti-BGH MA	Ħ	Humanised HFE7A de	3F4 (Chimeric) hum	(Chimeri	Human immune syste		Sequence of antibo	pre-5A8 humanised		3F4 Human IgG4 exp	۳.	HFE7?		humani	Humanised anti-Fas	HFE7	a	humani	anti-	Ω.		etely huma	eshaped F1	anti-CD	H52H4-160 murine a	۵	Chimeric mouse/hum

ALIGNMENTS

RESULT R13061 ID R1 XX AC R1 XX DT 03

R13061;

R13061 standard; Protein; 468

A

OK3T; light chain; humanised antibodies; CDR-grafting.

Monoclonal antibody OK3T heavy chain.

03-OCT-1991 (first entry)

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WPI; 1991-222915/30
           Adair JR,
                                                                                          Protein
                                                                                                           Key
                      (CELL-) CELLTECH LTD
                                 21-DEC-1990;
21-DEC-1989;
                                                   21-DEC-1990;
                                                              11-JUL-1991.
                                                                         W09109967-A.
                                                                                                     Peptide
                                                                                                                      Mus musculus.
          Athwal DS,
                                 90WO-GB02017.
89GB-0028874.
                                                   90WO-GB02017
                                                                                         /label= signal peptide 20..468
                                                                                                          Location/Qualifiers
                                                                                   /label- light chain
           Emtage JS;
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RESULT
R40384
ID R403
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R403
AC R403
XX
DT 08-F
XX
DE Mono
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Anti
EN Extended the cyto
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Region
                                  Region
                                                                                              cytotoxic
                                                                                                        anti-snake small neurotoxin antibody; heavy chain; IgG2;
immunoglobulin; bispecific bivalent antibody; cell-targetting;
                                                                                                                                           Monoclonal antibody M(alpha)2-3 Heavy-chain
                                                                                                                                                                       08-FEB-1994
                                                                                                                                                                                                                     R40384 standard; Protein; 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDR-grafting experiments to prepare humanised antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isolated from a library prepared from OK3T producing cells. The library was screened with a probe complementary to a region in the mouse IgG2a constant domain region. The OK3T sequence was used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; Q12637
                                                          Peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            humanised antibodies comprising CDR grafted antibody - with vy and light chains, for use in in vivo therapy and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OK3T heavy chain sequence was deduced from the cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                            ekknwvernsyscsvvheglhnhhttksfsrtpgk 468
                                                                                                                                                                                                                                                                                                                                            PPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKLNM 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARRAGAYY-FDYWGQGTTLTVSSA 119
                                                                                                                                                                                                                                                                                                        KTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                                                                                                                                                                                                                                                          ppeeemtkkqvtltcmvtdfmpediyvewtnngktelnykntepvldsdgsyfmysklrv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nqkfkdkatlttdkssstaymqlssltsedsavyycaryyddhycldywgqgttltvssa 139
                                                                                                                                                                                                                                                                                                                                                                               redynstlrvvsalpiqhqdwmsgkefkckvnnkdlpapiertiskpkgsvrapqvyvlp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YTMSSSVTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKCPAP 239
                                                                                              agent
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                                                                                                                                                                      (first entry)
                                   20..139
                      /label= variable
                                             /label= signal_peptide
                                                                    Location/Qualifiers
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es 60; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                      a fragment of the heavy chain (VH + CH1) from the anti-snake small cheerived monoclonal antibody M(alpha)2-3 was PCR-amplified from the hybridoma-derived cDNA using primers Q48039 and Q48040. A light Chain fragment (VL + CL) was amplified from the same source using primers Q48041 and Q48042. The two amplified fragments were inserted into the same vector; the H-chain fragment was inserted (in-frame) between codons 6-7 of the phoA coding sequence and the CL-chain fragment was inserted into a cassette which contained a phoA S-D sequence, a signal peptide and the first 6 codons of phoA. CT The cassette was positioned between the termination codon and the transcription termination sequence of phoA. The fusion construct is expected to to encode a hybrid protein comprising two defentions containing two different Ab-derived units (i.e. to produce phoA, the hybrid molecules can be used as cell-targetting
                                                                                                                                                                                                                                                                                      Best Local Similarity Matches 345; Conserv
                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Fig 3A; 37pp; French.
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                                                                                                                                                                                                                                                                                                                                                                                              cherapeutic agents.
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(COMS ) COMMISSARIAT ENERGIE ATOMIQUE.
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                                                                                                                                                                                                                                            LYTMSSSVTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKCPA 238
                                                                                                                                                                                  SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARRAG--AYYFDYWGQGTTLTVSS 118
                 PNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQT
                                                                                                                   AKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALLQSG 178
                                                                                                                                                                  nenfkgkatltvdtssstaymqlssltsedtavyfcaramgatatlldywgqgttltvss
                                                                                                                                                                                                                            qiqlqqsgpelvkpgasvkisckasgytftdyyinwvkqkpgqglkwigwiypasgntky 79
                                                                                                     akttapsvyplapvcgdttgssvtlgclvkgyfpepvtltwnsgslssgvhtfpavlqsd 199
469 AA;
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253..362
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                                                                                                                                                                                                                                                                                      75.6%; Score 1835; DB 14; 75.7%; Pred. No. 4.2e-111; tive 44; Mismatches 59;
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                                                                                                                                                                              01-DEC-1987;
18-MAR-1987;
10-AUG-1987;
16-MAR-1988;
01-JAN-1988;
Modified antibodies (Abs) having an altered Fc region with altered binding affinity for an Fc receptor esp. Fc-gamma-Rl may have the following residues replaced: 234, 235, 236 and 237; 235 by Glu, and at least one of the others by Ala. Those with altered binding affinity for Clq may have an altered CH2 domain in which one of the following residues of the heavy chain have been changed to a
                                                                                                                                                                                                                                                                                                                                                Region
                                                               Example; Fig 3;
                                                                                       Modified IgG class antibody - haresidue in the constant portion
                                                                                                                   N-PSDB;
                                                                                                                           WPI; 1988-285543/40
                                                                                                                                             Winter
                                                                                                                                                                                                                                   18-MAR-1988;
                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                                                            Key
                                                                                                                                                                                                                                                                                                                                                                                            Mouse.
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                                                                                                                                                                                                                                                                                                                                                                   Domain
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                                                                                function
                                                                                                                                                             (MEDI-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \verb"pnllggpsvfifppkikdvlmislspivtcvvvdvseddpdvqiswfvnnvevhtaqtqt"
                                                                                                                                             GP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                             MEDICAL
                                                                                                                   N82456.
                                                                                                                                                                                                                                                                                                                                                                                                                                      encoded
                                                                                                                                                                                                                                                                                                                                                                                                           molecule; constant region;
                                                                                                                                            Duncan AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                       87GB-0028042.
87GB-0006425.
87GB-0018897.
88WO-GB00211.
                                                                                                                                                                              88GB-0025480
                                                                                                                                                                                                                                  88WO-GB00211
                                                              42pp;
                                                                                                                                                             RES COUNCIL.
                                                                                                                                                                                                                                                                                                      235..341
/label= (
                                                                                                                                                                                                                                                                                                                      120..234
/label= CH3
                                                                                                                                                                                                                                                                                                                                                /label= CH1
98..119
                                                                                                                                                                                                                                                                                    /note= "This residue
                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                      by mouse 1gG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
                                                                                                                                                                                                                                                                                                                                      'label= hinge
                                                               English.
                                                                                                                                                                                                                                                                                                      СНЗ
                                                                                                                                            Burton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                                                                                                                    antibody;
                                                                                        having at
on altered
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                                                                                                                                                                                                                                                                                                                                                                                                                                      gamma 2b
                                                                                                                                             DR;
                                                                                                                                                                                                                                                                                                                                                                                                          ly; immune response; heavy chain; compler
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                                                                                                                                                                                                                                                                                                                                                                                                                                      gene.
                                                                                       to alter a
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                                                                                       e aminoacid
an effector
                                                                                                                                                                                                                                                                                                                                                                                                            complement.
                                                                                                                                                                                                                                                                                                                                                                                                                    Fc receptor;
      y Glu,
d binding
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Best Local S
Matches 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     residue with a different side chain; 318 (changed to Val) 3 322 (changed to Gln). Those with altered lytic properties, compared with unmodified Ab may have an altered CH2 domain residue 297 of the heavy chain has been changed to Ala.
The sequence encodes the heavy chain of MAb KS1/4, construct mouse/human chimeric antibodies. KS1/4:
                             Claim 6;
                                               Recombinant DNA cpds. chimeric derived from
                                                                            WPI; 1989-311203/43.
N-PSDB; N91659.
                                                                                                                                                                                   25-APR-1989
                                                                                                                                                                                                     EP338767-A.
                                                                                                                                                                                                                       KS1/4;
                                                                                                                                                                                                                                                            Chimeric antibody heavy chain
                                                                                                                                                                                                                                                                                                   P93037;
                                                                                                                                                                                                                                                                                                                     P93037 standard;
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                                                                                                                          (ELIL )
                                                                                                                                             21-APR-1988;
                                                                                                                                                                18-APR-1989;
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hes 336;
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                                                                                                                                                                                                                                                                                                                                                                   YSKLNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PNLEGGPSVFIFPPNIKDVLMISLTPKYTCVVVDVSEDDPDV-----QISWFVNNVEVHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LYTMSSSVTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKCPA 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               akttppsvyplapgcgdttgssvtlgclvkgyfpesvtvtwnsgslsssvhtfpallqsg
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                                                                                                                                                                                                                      chimeric antibody; heavy chain variable region;
                                                                                                       LS,
                                                                                                                          ELI LILLY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 98.5
36; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    341 AA;
                                                                                                       Bumol TF,
                                                                                                                                                                                                                                                                              (first entry)
                            50;
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                                                                                                                                                                89EP-0303814
                                                                                                                                                                                                                                                                                                                     protein;
                          89pp;
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98.5%;
                                               producing a
                                                                                                                          င္ပ
                            English.
                                                                                                       Gadski RA,
                                                                                                                                                                                                                                                                                                                     447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1789.5; DB 9;
Pred. No. 2.6e-108;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                              variable
                                               antibodies
l antibody 1
                                                                                                       Weigel
                                               s - monoclonal
KS1/4.
                                                                                                        ВЛ;
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used to is a murine
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Best Local Similarity
                                                    Fischer R,
Yang YH;
                                                                                                                  (CITY )
(YANG/)
  WPI; 1994-007204/01
                                                                                                                                                                                                                                                                     23-DEC-1993.
                                                                                                                                                                                                                                                                                                              W09325237-A
                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                               region;
                                                                                                                                                                                                                                                                                                                                                                                                                        Chimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             T84.12
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                                                                                                                                                                                 15-JUN-1992;
                                                                                                                                                                                                                           15-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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addfkgrfafsletsastaflq1qqpqnmrtmatyfcvrf1sk--gdywgqgtsvtvssa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     binds to surface antigens on adenocarcinoma cells and the C regions avoids immunological problems during treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heavy
                                                                                                                      CITY
                                                                                                                                                                                                                                                                                                                                                                                             c; carcinoembryonic antigen; CCA; murine; mouse;
transform; myeloma cell; light chain; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    447
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                                                                            Paxton
                                                                                                                      Υ. OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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Matches 316
                  Antigen binding structure; complementarity determining region; CA55.1; colorectal cancer; tumor-associated antigen; hybridoma; monoclonal antibody; MAb; immunotherapy; therapy; diagnosis; transgenic animal; transgenic plant; antibody engineering;
                                                                                                                                                                                                                                                                                                             R76088 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequences (Q54651-52) show the light and heavy chain cDNAs of murine T84.12. The T84.12 antibody is directed against the tumour marker carcinome embryonic antigen, and is useful for tumour imaging and immunotherapy.

The amino acid sequence given in the specification has been incorrectly identified as a nucleic acid sequence, therefore
humanized antibody; immunotoxin
                                                                                                                                                                                                         21-NOV-1995
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The amino acid sequence given below has been derived from the country for the transfer of the country for the transfer of the transf
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Pred. No. 1.86
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Best Local
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                                                                                                                                                                                                                                                                                                                                                      antigen CA55.1. cDNAs for the heavy (094037) and light (094036) chains of 55.1 were isolated, and F(ab)', F(ab)2, Fab, Fv, scFv or V-min humanized 55.1 constructs have been every college.
                                                                                                                                                                                                                                                                                                                                                                                                                            Antigen binding structures containing antigen - produced by hybridomas and h diagnosis and therapy of cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1995-215262/28.
N-PSDB; Q94037.
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                                                                                                                                                                                                                                                                                                                                                 cells and E. coli.
                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig.15; 121pp; English.
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ippp keqmakdkvsltcmitdff peditve wqwngqpaenykntqpimdtdgsyfvyskl\\
           LPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKL 417
                                                THREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYI 357
                                                                            vpevs---svfifppkpkdvltitltpkvtcvvvdiskddpevqfswfvddvevhtaqtq
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                                       preeqfnstfrsvselpimhqdwlngkefkcrvnsaafpapiektisktkgrpkapqvyt
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Pred. No. 1.4e-95;
5; Mismatches 83;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hall SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                      g CDRs recognising the CA55.1 host cells, for use in the
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Best Local Similarity
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                                                                                                                                                                                                              An antigen binding structure is based on the CDRs (given in R76078-84) of the heavy (R76085) and light (R76086) chains of MAb 55.1 (ECACC 93081901), which recognises the colorectal tumor-associated antigen CA55.1. It is optionally humanized and in the form F(ab')2, F(ab), Fv, scFv or V-min, and is produced in transgenic
                                                                                                                                                                                                                                                                                             Antigen binding structures containing antigen - produced by hybridomas and higgmosis and therapy of cancer
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                                                                                                                                                                                                                                                                                                                                                        Rose
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03-DEC-1993;
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Pred. No. 2.5e-95;
54; Mismatches 84;
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08-OCT-1997;
01-APR-1997;
25-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rheumatoid arthritis; autoimmune haemolytic anaemia; myasthenia gravis; multiple sclerosis; Basedow's disease; thrombopenia purpura; insulin-dependent diabetes; allergy; attpropriate purpura; insulin-dependent diabetes; allergy; atopy; arteriosclerosis; myocarditis; cardiomyopathy; glomerular nephritis; hypoplastic anaemia; hepatitis; AIDS; transplant rejection; therapy; complementarity determing region;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HFE7A; monoclonal antibody; mouse; Fas; humanised antibody; apoptosis; HFE7A; autoimmune disease; Hashimoto's disease; systemic lupus erythematosus; graft versus host disease; Sjogren syndrome; pernicious anaemia; Addison's disease; scleroderma; Goodpasture syndrome; Crohn's disease; sterility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W83041 standard;
                                                                                                                       30-MAR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-MAR-1999
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                    97JP-0276064.
97JP-0082953.
97JP-0169088.
                                                                                                                     98AU-0059701
                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= Constar
50..54
/label= CDR_H1
                                                                                                                                                                                                                                                                                                                                                                                         /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= Sig_peptide
20..464
/label= Mat_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                             /label=
                                                                                                                                                                                                                                                                                                                                           /label= CDR_H2
/note= "claim !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= Variable
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Query Match Best Local Matches 298;

Local Similarity

64.5%; 65.2%;

Score 1564.5; Pred. No. 1.2

.2e-93;

DB 19; 66;

Length 464;

Conservative

58;

Mismatches

Indels

15;

Gaps

5

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Chain was obtained from HFEFA-secreting hybridoma (FERW BP-5828)
CRNA by RT-PCR (see V70125-26). The invention provides humanised
CHEFA antibodies (see W83031-37) produced by CDR grafting. These
Cantibodies are capable of inducing apoptosis in abnormal cells
Cells. They are used to evaluate, in animal models, treatments of
Ciseases that involve Fas/Fas ligand interactions, and also to treat
Such diseases, including autoimmune disease (e.g. systemic lupus
Crythematosus, Hashimoto's disease, graft versus host disease,
Cigogren syndrome, pernicious anaemia, Addison's disease,
Ciscarderma, Goodpasture syndrome, Crohn's disease, rheumatoid
Carthritis, autoimmune haemolytic anaemia, sterility, myasthenia
Cigravis, multiple sclerosis, Basedow's disease, thrombopenia purpura
Cand insulin-dependent diabetes), allergies, atopy, arteriosclerosis,
Cic anaemia, hepatitis, AIDS and transplant rejection (all claimed).
                                                                                                                                                                                                                                                                                                                                                                                                                                         New antibodies and proteins bind conserved epitope of Fas antigen used to evaluate drugs in animal models and to treat Fas-associated diseases e.g. autoimmune disease, allergy, atopy, arteriosclerosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Akio S, Hideyuki H,
Masahiko O, Nobufusa
Sequence
                                                                                                                                                                                                                                                                                                                                                                                       Reference Example 4; Page 187-188; 292pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                             myocarditis, hepatitis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SANY)
                                                                                                                                                                                                                                                                                                                                                    is the amino acid of the heavy chain of murine anti-human Fas
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                                                                                                                                                                                                                                                                                                                                 antibody HFE7A
 464 AA;
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S, Shin
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nvqksnweagntftcsvlheglhnhhtekslshspgk
             | MKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK
                                                                                                                                                           vpevs---svfifppkpkdvltitltpkvtcvvvdiskddpevqfswfvddvevhtaqtq
                                                                                                                                                                                                                           GLYTMSSSVTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKCP
                                                                                                                                                                                                                                                                  LPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKL
                                                                                                        preeqfnstfrsvselpimhqnwlngkefkcrvnsaafpapiektisktkgrpkapqvyt
                                                                                                                                 THREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYI
                                                                                                                                                                        APNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQ
                                                                                                                                                                                                               dlytlsssvtvpsstwpsqtvtcnvahpasstkvdkkivp----rdc-gckpc-ict
                                                                                                                                                                                                                                                                                              SAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALLQS
                                                                                                                                                                                                                                                                                                                    SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARR---AGAYYFDYWGQGTTLTVS 117
                                                                                                                                                                                                                                                                                                                                                                           qvqlqqpgaelvkpgasvklsckasgytftsywmqwykqrpgqglewigeidpsdsytny
                                                   ipppkeqmakdkvsltcmitdffpeditvewqwngqpaenykntqpimntngsyfvyskl
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RESULTATION RESULTS RE
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                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (complementarity determining regions) to antibody HFE7A. Via its interaction with Fas, the antibody of the invention acts as a modulator of apoptosis. The compositions of the invention may therefore be used in the treatment or prevention of conditions such as autoimmune diseases, allergy, atopy, arteriosclerosis, myocarditis, cardiomyopathy, glomerulonephritis, aplastic anaemia (panmyelophthisis), hepatitis, and organ graft rejection. The present sequence represents the heavy chain of the murine anti-human Fas monoclonal antibody HFE7A, which is produced by hybridoma HFE7A (FERM-BP-5828).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to compositions for the prevention or treatment or diseases caused by an abnormality in the Fas/Fas ligand system containing an anti-Fas antibody as the active component. The anti-Fas antibody is either the murine anti-human Fas monoclonal antibody HFE7A, or a humanised version of HFE7A containing identical CDRs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                murine; complementarity determining region; CDR; human Fas;
Fas ligand; apoptosis modulator; programmed cheath;
autoimmune disease; allergy; atopy; arteriosclerosis; myocarditis;
cardiomyopathy; glomerulonephritis; aplastic anaemia; panmyelophthisis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Preventive or treating agent for the diseases caused by an abnormality in the Fas/Fas ligand system e.g. autoimmune diseases, contains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 4; Page 67-68; 139pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mouse anti-Fas antibody HFE7A heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-NOV-2000
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                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           invention relates
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                                                                                                                                                                                                                                                                                 SAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALLQS
sakttppsvyplapgsaaqtnsmvtlgclvkgyfpepvtvtwnsgslssgvhtfpavlqs
                                                                                                                        nqkfkgkatltvdtssstaymqlssltsedsavyycarnrdysnnwyfdvwgtgttvtvs
                                                                                                                                                     SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARR---AGAYYFDYWGQGTTLTVS
                                                                                                                                                                                                                                              qvqlqqpgaelvkpgasvklsckasgytftsywmqwvkqrpgqglewigeidpsdsytny
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                                                                                                                                                                                                                                                                                                                                                                             298;
                                                                                                                                                                                                                                                                                                                                                                          Similarity 65.: 98; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antibody; monoclonal antibody HFE7A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               464
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65.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                   Score 1564.5; DB 21; Pred. No. 1.2e-93;
                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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This invention describes a novel humanized anti-Fas antibody-like molecule (I) that, induces apoptosis in cells with an abnormal Fas/Fas ligand system, by binding to Fas on the cell surface, and prevents apoptosis in cells with a normal system, by inhibiting binding between Fas and its ligand. The products of the invention have anti-inflammatory,

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Fas; antibody; murine; anti-inflammatory; anti-anemic; antidiabetic; anti-allergic; anti-arthritic; antiviral; immunomodulatory; cardiant; dermatological; immunosuppressive; thyromimetic; antirheumatic; anti-fas;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sjorgen's syndrome; anemia; Addison's disease; scleroderma; sterility; Goodpasture syndrome; Crohn's disease; sterility; myasthenia gravis; multiple sclerosis; Basedow's disease; thrombopenia purpura; allergy; insulin dependent diabetes mellitus; arteriosclerosis; myocarditis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nephrotropic; antiinfertility; neuroprotective; antiarteriosclerotic; hepatotropic; humanized; apoptosis; systemic lupus erythematosus; HFE Hashimoto disease; rheumatoid arthritis; graft versus host disease;
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30-SEP-1998;
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Example
                                             cells with abnormal Fas-Fas ligand
                                                              New humanized anti-Fas antibody, useful for treating inflammatory or autoimmune disease, induces apoptosis
                                                                                                                                       WPI; 2000-258930/23
N-PSDB; A11546.
                                                                                                                                                                                                          Serizawa N,
                                                                                                                                                                                                                                                                                                                                                                                                                        05-APR-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cardiomyopathy;
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                                                                                                                                                                                                                                                           SANKYO
reference
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98JP-0276882
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Page 100-102; 263pp; English.
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                                           systems
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Best Local
                              Antibody F19 chimeric mouse/human heavy chain variable region (chF19HC).
                                                                        31-JAN-2000
                                                                                                                                                           Y50151 standard; Protein; 453
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
                                                                                                                                                                                                                                                                 nvqksnweagntftcsvlheglhnhhtekslshspgk 464
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                                                                                                                                                                                                                                                                                                                                                                            LPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSKL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         THREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAPQVYI 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTAQTQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dlytlsssvtvpsstwpsgtvtcnvahpasstkvdkkivp-----rdc-gckpc-ict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GLYTMSSSVTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKCP 237
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARR---AGAYYFDYWGQGTTLTVS 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qvqlqqpgaelvkpgasvklsckasgytftsywmqwvkqrpgqglewigeidpsdsytny 79
                                                                                                                                                                                                                                                                                                                                                ippp keqmakdkvs \texttt{ltcmitdff} peditve wqwngqpaenykntqpimntngsyfvyskl
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65.2%;
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                                                                                                                                                                                                                                                                                                                        chimeric antibody was humanised by joining entire murine variable regions to human constant regions. However, humanised antibodies produced by this method can still elicit an anti-mouse response in humans, whereas antibodies humanised via CDR (complementarity determining region) grafting are less immunogenic in humans. Humanised F19 antibodies are useful for treating cancers e.g., colorectal cancers, non-small cell lung cancers, breast cancers, head and neck cancers, ovarian cancers, lung cancers, breast cancers, pancreatic cancers and metastatic cancers. They are also useful for the detection of activated stromal fibroblasts in a healing wound, inflamed skin or a tumour in a human patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Accession number HB 8269) is a murine monoclonal antibody against fibroblast activation protein alpha (FAP). FAP is a cell squainst fibroblast activation protein alpha (FAP). FAP is a cell surface molecule of reactive stromal fibroblasts, and its induction is a highly consistent molecular trait of the reactive stroma of many types of epithelial cancer. Although F19 may be useful in vitro, e.g., for diagnosis, its applications for in vivo use in humans are problematic as it elicits a human anti-mouse response which reduces the efficacy of the antibody in patients and impairs continued administration. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              humanisation; complementarity determining region; CDR; CDR grafting; reactive stroma; fibroblast; epithelial cancer; diagnosis; immune response; framework sequence; constant region; variable region; producibility; treatment; cancer; colorectal; lung; breast; head; neck; ovarian; lung; bladder; pancreatic; metastasis;
                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This sequence represents the heavy chain variable region chimeric mouse/human F19 antibody (chF19HC). F19 (ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New antibody protein, presence of activated
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Chimeric -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antibody; monoclonal; F19; fibrinogen activation protein alpha; FAP; humanisation; complementarity determining region; CDR; CDR grafting;
116 VSSAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPALL 175
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                                   qkfkgratltvgkssstaymelrsltsedsavyfcarrriaygydeghamdywgqgtsvt 120
                                                                                                             VQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIFS 61
                                                                           PKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARRAGAYYF------DYWGQGTTLT 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Garin-Chesa P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fig 18; 143pp; English.
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                                                                                                                                                                                          61;
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                                                                                                                                                                                          Score 1559; DB 20;
Pred. No. 2.7e-93;
il; Mismatches 88;
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Chimeric
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antibody; monoclonal; F19; fibrinogen activation protein alpha; humanisation; complementarity determining region; CDR; CDR graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chimeric mouse/human F19 antibody heavy chain.
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 Park JE,
                                            30-APR-1998;
                                                                  30-APR-1998;
                                                                                                              EP953639-A1
                                                                                                                                             Region
                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                 chimeric;
                                                                                                                                                                                                                                                                                                                                                                                             detection;
                                                                                                                                                                                                                                                                                                                                                                                                         breast;
                                                                                                                                                                                                                                                                                                                                                                                                                    variable
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                      (BOEH ) BOEHRINGER INGELHEIM INT GMBH
                                                                                                                                                                                                                          Region
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                                                                                                                                                                                                                                                                                                                Peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VYILPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ktkpreegynstyrvvsvltvlhqdwlngkeykckvsnkalpapiektiskakgqprepg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KCPAPNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q-SGLYTMSSSYTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SKLNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vytlppsreemtknqvsltclvkgfypsdiavewesngqpennykttppvldsdgsffly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qssglyslssvvtvpssslgtqtyicnvnhkpsntkvdkkvepkscdkt-htcpp----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                          e region; producibility; treatment; cancer; colorectal; lung;
head; neck; ovarian; lung; bladder; pancreatic; metastasis;
on; wound healing; skin inflammmation; tumour; immunogenicit
                                                                                                                                                                                                                                                                                                                                                 , ,
 Garin-Chesa
                                                                                                                                                                                                                                                                                                                                                                                  heavy chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                           qs
                                            98EP-0107925
                                                                  98EP-0107925
                                                                                                                                                                                 /note=
50..54
                                                                                                                                                                               /note=
143..1
                                                                                                                                                                                                                         /note-
69..85
                                                                                                                                                                                                                                                                    /note= "
20..143
                                                                                                                                                                                                                                                                                          /note= "Leader peptide"
20..472
                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                             144..472
                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                   /note-
                                                                                                                                                                   /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein; 472
                                                                                                                                                                               . 144
P,
                                                                                                                                                                                                                                                                              "Mature chimeric mouse/human F19 heavy chain"
                                                                                                                                                        "mRNA splicing between these
                                                                                                                                "Human gamma-1 heavy chain constant region"
                                                                                                                                                                                                                                   "Complementarity determining region (CDR) 1"
                                                                                                                                                                                                                                                          "Mature mouse F19
Bamberger U,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                                                                        causes an residues"
Leger 0,
                                                                                                                                                                                                                                                         heavy
                                                                                                                                                                                                                                                         chain variable region"
                                                                                                                                                                                                                                                                                                                                                                                           tumour; immunogenicity;
                                                                                                                                                                  Ala
 Saldanha
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skin -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   is a highly consistent molecular trait of the reactive stroma of many types of epithelial cancer. Although F19 may be useful in vitro, e.g., for diagnosis, its applications for in vivo use in humans are problematic as it elicits a human anti-mouse response which reduces the efficacy of the antibody in patients and impairs continued administration. This chimeric antibody was humanised by joining entire murine variable regions to human constant regions. However, humanised antibodies produced by this method can still elicit an anti-mouse response in humans, whereas antibodies humanised via CDR (complementarity determining region) grafting are less immunogenic in humans. Humanised T19 antibodies are useful for complementarity determining region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 useful for treating cancers e.g., colorectal cancers, non-small cell lung cancers, breast cancers, head and neck cancers, ovarian cancers, lung cancers, bladder cancers, pancreatic cancers and metastatic cancer. They are also useful for the detection of activated stromal fibroblasts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New antibody protein, presence of activated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-621833/54.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          surface molecule of reactive stromal fibroblasts, and its induction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antibody against fibroblast activation protein alpha (FAP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Fig
 432
                                     414
                                                                       372
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                                                                                                                                                                                                                     254
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 EVQLQQSGPELVKPGASYMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence
body. F19
                YSKLNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK
                                                                                      QVYILPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFI 413
                                                                                                                                                                                                                   --cpapellggpsvflfppkpkdtlmisrtpevtcvvvdvshedpevkfnwyvdgvevhn
                                                                                                                                                                                                                                                                                                           LQ-SGLYIMSSSYTYPSSTWPSQTYTCSVAHPASSTTYDKKLEPSGPISTINPCPPCKEC
                                                                                                                                                                                                                                                                                                                                                                                                  TVSSAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPAL 174
                                                                                                                                                                                                                                                                                                                                                                                                                                    ngkfkgratltvgkssstaymelrsltsedsavyfcarrriaygydeghamdywgggtsv 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                           evqlqqsgpelvkpgasvkmscktsrytfteytihwvrqshgkslewigginpnngipny 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              healing wound, inflamed skin or a tumour in a human patient.
yskltvdksrwqqgnvfscsvmhealhnhytqkslslspgk
                                                                                                                                             aktkpreegynstyrvvsvltvlhqdwlngkeykckvsnkalpapiektiskakgqprep
                                                                                                                                                                                                                                                       HKCPAPNLEGGPSVFIFPPNIKDVLMISLTPKVTCVVVDVSEDDPDVQISWFVNNVEVHT 293
                                                                                                                                                                                                                                                                                                                                                              tvsss-tkgpsvfplapsskstsggtaalgclvkdyfpepvtvswnsgaltsgvhtfpav
                                                                     qvytlppsreemtknqvsltclvkgfypsdiavewesngqpennykttppvldsdgsffl
                                                                                                                                                              AQTQTHREDYNSTIRVVSTLPIQHQDWMSGKEFKCKVNNKDLPSPIERTISKIKGLVRAP
                                                                                                                                                                                                                                                                                          lqssglyslssvvtvpssslgtqtyicnvnhkpsntkvdkkvepkscdkt-htcpp----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       297;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              represents the heavy chain of a chimeric mouse/human F (ATCC Accession number HB 8269) is a murine monoclonal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27; 143pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        useful for treating stromal fibroblasts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1550.5; Di
Pred. No. 1e-92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer and for imaging in healing wound or in:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 20;
                                                                                                                                                                                                                                                                                                                                                                                   = ::= :::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87; Indels
                                     454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 472;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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RESULT R66758

13

R66758 standard;

Protein; 465

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                                                                                                                                             Qy
                                                                                                                                                                                                                              Query Match
Best Local S
Matches 295
                                                                                                                                                                                                                                                                                   monoclonal antibody. The cDNAs were incorporated into plasmid vector, which was incorporated into A. tumefac
                                                                                                                                                                                                                                                                                                        Q79929 and Q79930 encode R66757 and R66758, the light and heavy chains of an animal derived anti-tobacco mosaic virus (TMV)
                                                                                                                                                                                                                                                                                                                                                                Transformed plant producing animal-derived anti-virus antibody esp. tobacco plants producing anti-tobacco mosaic virus monoclonal antibody
                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Domain
177
                                                                                                                                                                                                                                               plasmid vector, which was incorporated into A. tumefaciens. The resultant plant expression vector was used to transform tobacco plants, making them TMV resistant, the plants could also be biofarmed for the prodn. of anti-virus antibodies.
                                                                                                                                                                                                                                                                                                                                          Example 2; Pages 14-15; 26pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JP06319396-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-tobacco mosaic virus monoclonal Ab heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tobacco mosaic virus; TMV; monoclonal heavy chain; virus-resistant plants; k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-SEP-1995
                                  140
                                                                                                                                                                                                                                                                                                                                                                                                                                            (NISB ) JAPAN TOBACCO INC. (KURS ) KURARAY CO LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide
                                                                             80
                                                                                                   61
                                                                                                                         20
                                                                                                                                                                      Local Similarity 64.4 es 295; Conservative
                                                                                                                                             1 EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
         SGLYTMSSSVTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKC
                              SPKFKGKATLTVDKSSSTAYMELRSLTSEDSAVYYCARRAG----AYYFDYWGQGTTLTV 116
                                                                                                                      1995-040220/06
DB; Q79930.
                                                                                                                                                                                                                            465 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93JP-0131208
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129..141
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/label= mat_peptide
20..128
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "J héavy 4 domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label- leader
                                                                                                                                                                     63.9%; Score 1550; DB 16; 64.4%; Pred. No. 1.1e-92; tive 58; Mismatches 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "constant heavy domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  biofarming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antibody;
                                                                                                                                                                                          Length 465;
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                                                                                                                                                                     Gaps
          236
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RESULT 14
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                                                                                                                                                         Query Match
Best Local
                                                                                                                                            Matches 294;
                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                   antibody H52H4-160
                                                                                                                                                                                                                                               The sequence is that of the heavy chain of murine anti-CD18
                                                                                                                                                                                                                                                                        Disclosure; Fig 6A; 126pp;
                                                                                                                                                                                                                                                                                                 Humanisation of antibodies - by molecular modelling of the variable domains and alteration by gene conversion mutagenesis {\sf deg}(x)
                                                                                                                                                                                                                                                                                                                                         WPI; 1993-018139/02.
                                                                                                                                                                                                                                                                                                                                                                 Carter PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9222653-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R30774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R30774 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Humanisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        H52H4-160 murine anti-CD18 antibody heavy chain.
                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                  14-JUN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 428 lnvqksnweagntftcsvlheglhnhhtekslshspgk 465
              115 TVSSAKTTPPSVYPLAPGCGDTTGSSVTLGCLVKGYFPESVTVTWNSGSLSSSVHTFPAL 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           417
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                                      61
                                                                61
                                                                                                                                            Local Similarity 63.8 nes 294; Conservative
                                     ngrfmdkatlavdkststaymelrsltsedsgiyycarwrglnygfdvryfdvwgagttv 120
                                                  qvqlqqsgpelvkpgasvkiscktsgytfteytmhwmkqshgkslewiggfnpknggssh 60
                                                                                                       EVQLQQSGPELVKPGASVMISCRTSAYTFTENTVHWVKQSHGESLEWIGGINPYYGGSIF 60
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454 AA;
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 454 AA
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                                                                                                                                             59;
                                                                                                                                           Score 1548; DB 14
Pred. No. 1.4e-92;
9; Mismatches 94
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                                                                                                                                                                    , 14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement system, regamma receptor; cytotoxic effector cell; host immune cell; programmed cell death; alterate disorder; cancer; autoimmune disease; allergic asthma; atopic dermatitis; crohn's disease allergic bronchopulmonary aspergillosis; allergic rhinitis; cancer; B-cell lymphoma; rheumatoid arthritis; ulcerative colitis; psoriasis; pigeon breeder's disease; hepatitis; leprosy; Lyme disease;
Genetically engineering immunoglobulin (Ig) G/IgG dimers for the treatment of cancers, allergic disorders and autoimmune condition
                                                                                                                   Braslawsky GR,
                                                                                                                                                                                               28-JAN-1999;
                                                                                                                                                                                                                                    28-JAN-2000; 2000WO-US01893
                                                                                                                                                                                                                                                                          03-AUG-2000
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                                                                                                                                                         (IDEC-) IDEC PHARM CORP
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DB; A63531.
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20..140
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                                                                                                                                                                                                                                                                                                                                                                                         /note= "murine anti-human region"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       candidiasis; aplastic anaemia
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                                                                                                                   Labarre
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         engineering a monoclonal antibody to introduce a cysteine molecule which inhibits formation of intramolecular disulphide bridges between sister heavy chains on the same antibody molecule. The dimer is a homodimer or heterodimer that is capable of activating components of the complement system, and has the ability to activate and kill cells via the complement cascade. The dimer is also capable of binding to Figure 1 to complement cascade. The dimer is also capable of binding to Figure 2 to capable of initiating programmed cells and on host immune cells, and is capable of initiating programmed cell death. The 1gG/IgG dimers may be used to treat allergic bronchopulmonary aspergillosis, allergic rihinitis, atopic dermatitis, Crohn's disease, Graves's disease, food allergic contact dermatitis, Crohn's disease, Graves's disease, food
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               allergies, allergic contact dermatitis, CLL cancers and/or B-cell lymphomas. They may also be used to treat a range of other diseases and disorders such as rheumatoid arthritis, ulcerative colitis, psoriasis, pigeon breeder's disease, hepatitis, leprosy, Lyme disease, diabetes pigeon breeder's disease, and aplastic anaemia. They are also useful for medicities, candidiasis and aplastic anaemia. They are also useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inducing hyper-cross-linking of membrane antigens and
preferential killing of selected cell populations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polypeptide. The dimeric immunoglobulin is used in the method of invention. The specification describes a method for producing an immunoglobulin (Ig) G/IgG dimer. The method comprises genetically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents a dimeric anti-CD20 light polypeptide. The dimeric immunoglobulin is used in the met
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Fig 2A-C;
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hes 284;
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| tvdksrwqqgnvfscsvmhealhnhytqkslslcpgk
                                              LNMKTSKWEKTDSFSCNVRHEGLKNYYLKKTISRSPGK 454
                                                                                       tlppsrdeltknqvsltclvkgfypsdiavewesngqpennykttppvldsdgsfflysk
                                                                                                            ILPPPAEQLSRKDVSLTCLVVGFNPGDISVEWTSNGHTEENYKDTAPVLDSDGSYFIYSK
                                                                                                                                                                             kpreegynstyrvvsvltvlhqdwlngkeykckvsnkalpapiektiskakgqprepqvy
                                                                                                                                                                                                                                                                    papellggpsvflfppkpkdtlmisrtpevtcvvvdvshedpevkfnwyvdgvevhnakt
                                                                                                                                                                                                                                                                                                                                                          sglyslssvvtvpssslgtqtyicnvnhkpsntkvdkkvepkscdkt-htcpp-----c
                                                                                                                                                                                                                                                                                                                                                                                                      SGLYTMSSSVTVPSSTWPSQTVTCSVAHPASSTTVDKKLEPSGPISTINPCPPCKECHKC
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Pred. No. 4.8e-89;
2; Mismatches 101
    470
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